



Lake Erie Harmful Algal Bloom Bulletin

20 September, 2018, Bulletin 27

Analysis

The *Microcystis* cyanobacteria bloom continues in the western basin of Lake Erie. Recent satellite imagery (9/19) shows the bloom extending from the Maumee Bay east along the coast of Ohio to the Metzger Marsh Wildlife Area. A large sediment plume throughout the western basin may be obscuring detected concentrations. Winds observed this week (9/17-20) promoted slight mixing of *Microcystis* concentrations. Toxin concentrations were detected at all sampling sites but remain below the recreational threshold. *Keep pets and yourself out of the water in areas where scum is forming.* The persistent cyanobacteria bloom in Sandusky Bay continues.

Forecasts

Winds (5-24 kn) forecast today through Monday (9/20-24) will promote mixing of surface waters and eastward transport of *Microcystis* concentrations. --Lalime, Ludema

Additional Resources

To find a safe place for recreation, visit the Ohio DOH "BeachGuard" site: <http://publicapps.odh.ohio.gov/beachguardpublic/>

Ohio EPA's site on harmful algal blooms: <http://epa.ohio.gov/HAB-Algae>

NOAA's GLERL provides additional HAB data here: http://www.glerl.noaa.gov/res/HABs_and_Hypoxia

The images below are "GeoPDF". Please visit <https://go.usa.gov/xReTC> for instructions on viewing longitude and latitude.

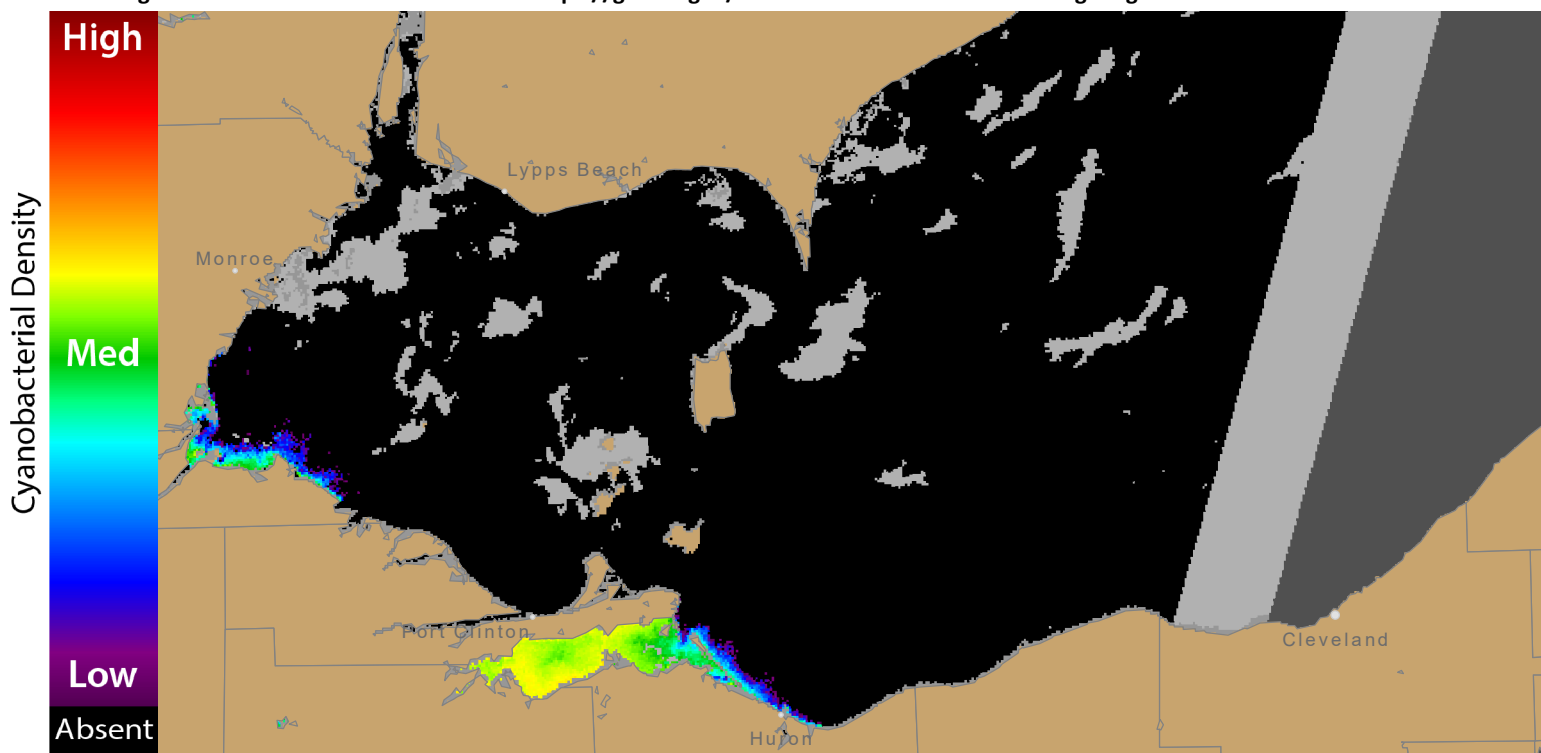


Figure 1. Cyanobacterial Index from modified Copernicus Sentinel 3 data collected 19 September, 2018 at 12:12 EST. Grey indicates clouds or missing data. The estimated threshold for cyanobacteria detection is 20,000 cells/mL.

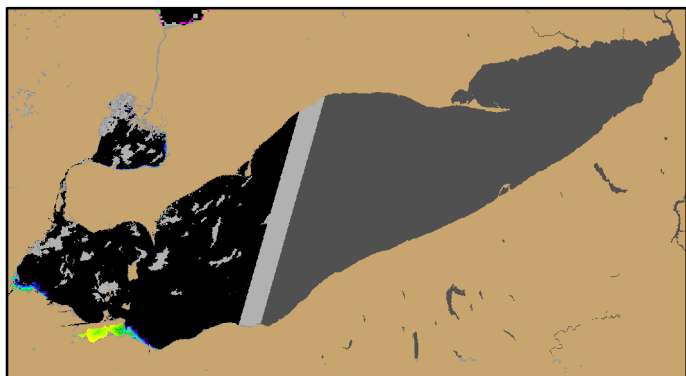
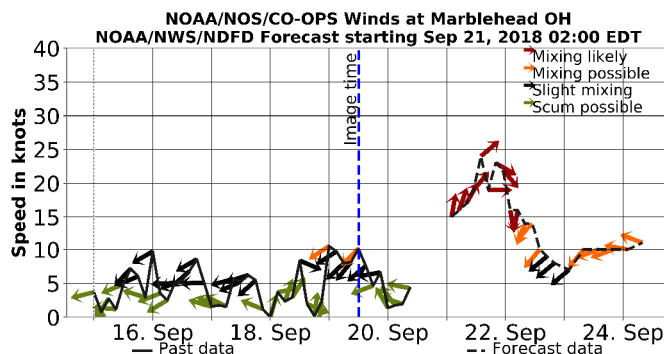


Figure 2. Cyanobacterial Index from modified Copernicus Sentinel 3 data collected 19 September, 2018 at 12:12.



Wind speed and direction from Marblehead, OH. Blooms mix through the water column at wind speeds greater than 15 knots (or 7.7 m/s).

For more information and to subscribe to this bulletin, go to: <https://tidesandcurrents.noaa.gov/hab/lakeerie.html>

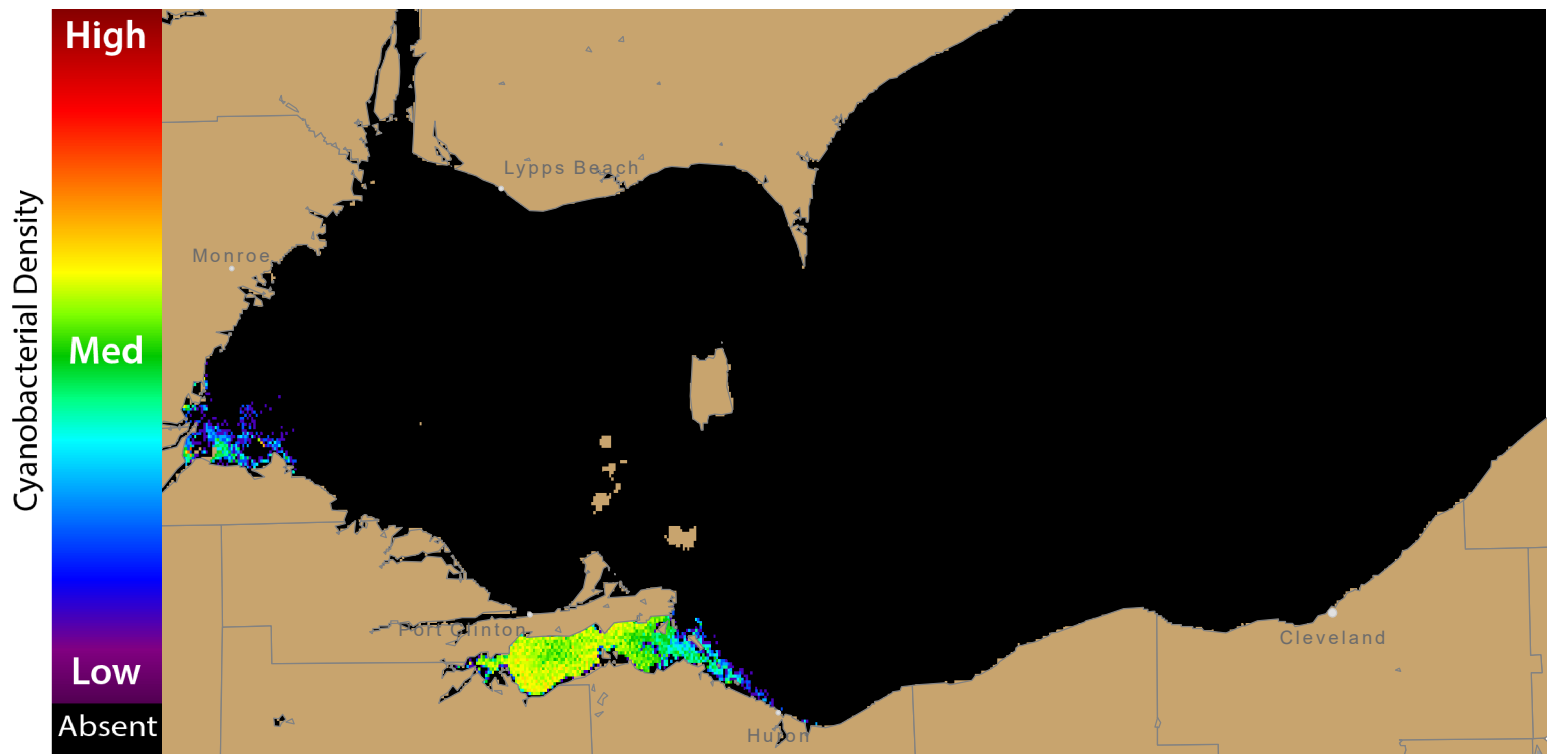


Figure 3. Nowcast position of bloom for 20 September, 2018 using LEOFS modelled currents to move the bloom from the 19 September,

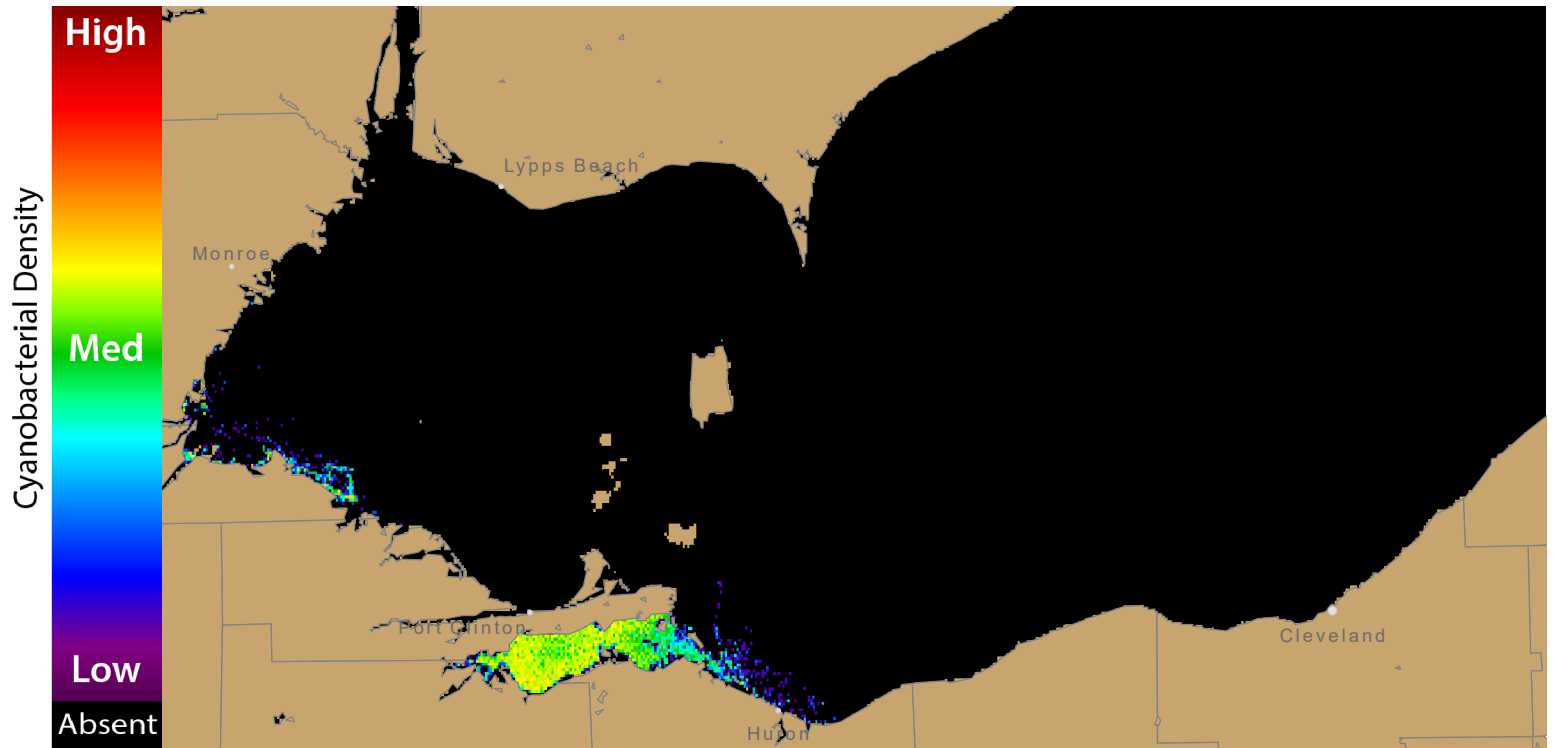
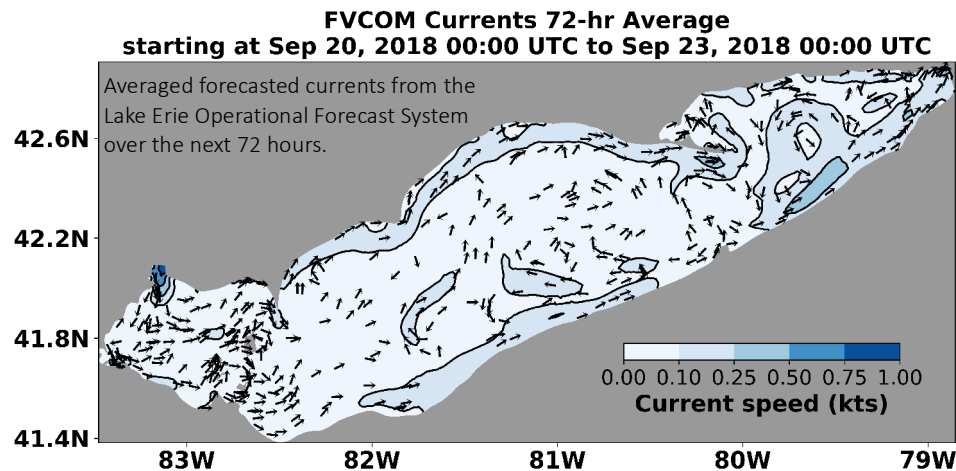


Figure 4. Forecast position of bloom for 23 September, 2018 using LEOFS modelled currents to move the bloom from the 19 September,



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<https://tidesandcurrents.noaa.gov/hab/lakeerie.html>